



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of	)	Confirmation No.: 7183
<b>ARTLEY et al.</b>	)	Examiner: <b>Boyd, Jennifer A.</b>
Serial No.: 10/022,959	)	Art Unit 1771
Filed: <b>December 18, 2001</b>	)	Docket No.: <b>T117 9001</b>
For: <b>POLYETHYLENE GLYCOL SATURATED SUBSTRATE AND</b>		
<b>METHOD OF MAKING</b>		

**DECLARATION UNDER 37 C.F.R. 1.131**

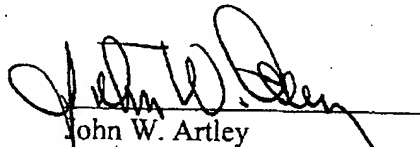
I, John W. Artley, of 4 Park Avenue, Apt. 10-R, New York, NY state the following as true:

1. I am one of the co-inventors of the claimed subject matter in the above-referenced application.
2. The present application relates to a method of manufacturing a polyethylene glycol treated fabric. The method includes exposing a fabric to a polyethylene glycol formulation having both an acid catalysis and a resin. The treated fabric is then heated and cured to initiate a catalytic reaction for bonding the polyethylene glycol formulation to the fabric. The bonded fabric is then washed or neutralized to a pH of between about 6.5 and about 7.5 and then dried.

3. I conceived the claimed subject matter in the present application prior to the effective date of U.S. Patent Number 6,617,268, or before July 7, 1999, coupled with due diligence from the conception date to the constructive reduction practice date or the filing date the provisional application filed December 21, 2000 from which the present application claims priority.

4. Photocopies of materials and documents supporting the above specified conception date are attached as *Exhibit 1* and *Exhibit 2*.

I hereby declare that all statements made herein are made of my own knowledge and are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful and false statements may jeopardize the validity of the application or any patent issued there from.

  
John W. Artley

September 26, 2005  
Date

As previously stated, very exacting oven dwell times must be determined for each individual fabric type and basis weight. Generally, dwell times will range from under two minutes and up to five minutes for heavy, dense fabrics. Infrared monitoring of the textile surface temperature should take place at periodic intervals during the curing process.

Formula saturation of a textile is accomplished by one of two methods; pressure spray assemblies mounted across the web or the use of traditional finishing saturation tanks. Although generally spraying the formulation onto the surface of the textile will offer more precise application of the formulation and coating of the fibers, there is no preference of one application technique over the other as long as the textile is thoroughly saturated with the formula to the desired level of wet add-on. Foam or scrape application of the formula also have potential.

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**Bayshore Absorbent Products, Inc.**  
**Wisconsin Global Technologies, Ltd.**

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## Technical Bulletin No. 4

### Application of the Formulation;

### Saturation, Curing Temperatures and Oven Dwell Time

With the crosslinked polyol technology, the formulation permanently bonds to each individual textile fiber by initiating a catalytic reaction during the curing process (this physically locks the molecular structure of the polyol formulation to the fiber's surface). This is the same phenomenon that occurs when a traditional durable press (DP) finish is applied to a woven textile.

With the crosslinked polyol formulation, this bonding or "crosslinking" occurs at a relatively low temperature of between 95°C/203°F and 105°C/220°F. All curing temperatures should be measured or read directly from the surface of the textile; an overall average ambient oven temperature reading should not be utilized. The surface temperature of the textile is to be heated as quickly as feasible; preheating the textile surface before entering the curing oven should be considered. Temperatures on the surface of the textile (when saturated with formula) in excess of 109°C/229°F may, under some circumstances, scorch or yellow the textile.

An absolutely critical element of the polyol finishing process is determining the precise surface temperature at which point the catalytic reaction takes place for each individual textile-type and basis weight. This temperature point will be somewhere between the temperature range discussed above. Trial and error is used to determine the optimum surface temperature required for each individual textile. If the textile surface temperature required to initiate the catalytic action is not reached, the formulation will not properly bond to the fiber structure. This will result in either a reversal of the actual process itself and/or formulation wash out.

The actual formula application process involves three distinct and separate steps. The first step is to saturate the textile structure with the specific crosslinked polyol formula selected for that textile given its intended end-use and desired performance characteristics. The second step is the thorough removal of excess formulation from the textile after saturation to arrive at the target wet weight

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